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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LEE KNACKSTEDT and SCOTT W. RAU

Appeal 2016-007682
Application 11/758,550[1]
Technology Center 3600

Before CAROLYN D. THOMAS, NABEEL U. KHAN, and DAVID J. CUTITTA II, *Administrative Patent Judges*.

KHAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–24 and 26–32. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] Appellants identify JPMorgan Chase Bank, N.A. as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

THE INVENTION

According to Appellants, the invention relates to "keeping check of financial transactions using a register portion, in conjunction with performing authentication of the transaction." Spec. 1:15–17.

Exemplary independent claim 1 is reproduced below.

> 1. A system that keeps check of financial transactions by maintaining a count of the financial transactions using a register portion, in conjunction with performing authentication further to inputting transaction data from a data-bearing record that is stored in a device, the system processing transactions respectively performed using first and second user devices that are associated with a single account number and having first and second transaction count value windows, respectively, the system comprising:
>
> a communication portion that inputs transaction data received from the data bearing record disposed in the device, the transaction data including an input transaction counter value and a first device differentiator number (DDN) that is associated with the first user device, the transaction data associated with a transaction;
>
> a processing portion, in the form of a tangibly embodied computer processor, that processes the transaction data, the processing portion including:
>
> a memory portion that stores stored data;
>
> a register portion that maintains a count of financial transactions so as to provide a current transaction count value associated with the first DDN;
>
> an authentication portion that performs authentication processing using a comparison process that utilizes the first transaction count value window and the input transaction count value, the first transaction count value window being based on the current transaction count value associated with the first DDN and defined by a

dynamic range of values such that a spread value of the first transaction count value window changes based on the received transaction data; and

the authentication portion generating an authentication result based on the comparison process; and

the authentication portion outputting the authentication result; and

for a second transaction, the communication portion inputting second transaction data received from a data bearing record disposed in the second user device, the second transaction data including a second transaction counter value and a second DDN that is associated with the second user device;

the authentication portion, for the second transaction initiated by the second user device, performing second authentication processing using a comparison process that utilizes the second transaction count value window and the input second transaction count value, the second transaction count value window being based on a current transaction count value associated with the second DDN associated with the second user device, and defined by the dynamic range of values,

wherein the dynamic range of values for the first transaction count value window is based on at least one selected from the group consisting of a time of day that the transaction was processed, the device that generated the transaction data, a location at which the transaction was effected, a frequency of transactions associated with the device, a rule set, and a determination of whether the transaction was processed using batch processing.

REJECTION

Claims 1–24 and 26–32 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception to statutory subject matter. Final Act. 3–6.

DISCUSSION

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology* v. *Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services* v. *Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts," such as an abstract idea. The Court acknowledged in *Mayo* that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). If the claims are not directed to an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered "individually and 'as an ordered combination,' to determine whether the

additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78).

STEP ONE OF ALICE/MAYO FRAMEWORK

Findings and Contentions

Under the first step of the *Alice/Mayo* framework, the Examiner concludes: "These claims are directed to the abstract idea of maintaining an accurate record of financial transactions, which falls under the abstract ideas of: (i) a fundamental economic practice, (ii) a method of organizing human activities, (iii) an idea of itself, or (iv) a mathematical relationship or formula." Final Act. 3. The Examiner further states:

> Maintaining an accurate record of financial transactions is not a preexisting fundamental truth, but rather is a longstanding commercial practice. The concept of maintaining an accurate record of financial transactions is a fundamental economic practice long prevalent in our system of commerce, which is in the realm of abstract ideas. Thus, the claim is directed to the abstract idea of maintaining an accurate record of financial transactions.

Final Act. 4.

Appellants argue "the Examiner has not presented a *prima facie* case that the claims are merely directed to an abstract idea and has not complied with the July 2015 Subject Matter Eligibility guidelines." App. Br. 9. In particular, Appellants argue, "The Office Action lacks 'a reasoned rationale' and an explanation as to why the several claim elements 'do not amount to significantly more than the exception.'" App. Br. 8. "The Examiner did not compare the claimed concepts to prior court decisions, nor did the Examiner even identify the claimed features beyond merely stating that 'inputting transaction data and maintaining a count of financial transactions [] amounts

to nothing more than insignificant extrasolution activities."' App. Br. 9 (alteration in original).

Appellants contend "allowing the pending claims would 'pose no comparable risk of pre-emption,' or 'improperly [tie] up the future use of [] building blocks of human ingenuity,' and therefore should 'remain eligible for the monopoly granted under our patent laws.'" App. Br. 10–11 (alteration in original) (quoting *Alice*, 134 S. Ct. at 2355).

Analysis

We are unpersuaded by Appellants' arguments. With respect to Appellants' arguments that the Examiner has failed to present a prima facie case, we disagree. To the extent Appellants suggest that the July 2015 Update or May 2016 Memorandum requires particular steps be performed in specific ways to establish that a claim is directed to an abstract idea, i.e., a "prima facie" case, Appellants are mistaken. Instead, 35 U.S.C. § 132 sets forth a more general notice requirement whereby the applicant is notified of the reasons for a rejection together with such information as may be useful in judging the propriety of continuing with prosecution of the application. Our reviewing court has explained:

> [A]ll that is required of the [USPTO] to meet its prima facie burden of production is to set forth the statutory basis of the rejection and the reference or references relied upon in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. As the statute itself instructs, the examiner must "notify the applicant," "stating the reasons for such rejection," "together with such information and references as may be useful in judging the propriety of continuing prosecution of his application." 35 U.S.C. § 132.

In re Jung, 637 F.3d 1356, 1363 (Fed. Cir. 2011). We have reviewed the decision to reject the claims for patent-ineligibility articulated by the

Examiner (*see* Final Act. 3–6; Ans. 2–9) and find it meets the notice requirements of 35 U.S.C. § 132. The Examiner has set forth the statutory basis for the rejection (a judicial exception to 35 U.S.C. § 101) and explained the rejection in sufficient detail to permit Appellants to respond meaningfully.

We turn next to the Examiner's determination that the claims are directed to an abstract idea. "The 'abstract idea' step of the inquiry calls upon us to look at the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter.'" *Affinity Labs of Texas v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *see also Enfish*, 822 F.3d at 1335 ("[T]he 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" (citation omitted)).

In this regard, the Specification explains:

> It is known in the art to use an ATC (Automatic Transaction Counter) . . . . When the cardholder runs a new transaction, the ATC is read and then compared to an ATC value [maintained by the authentication platform] . . . . If respective derived values, i.e., values derived from the ATC values, do not match, then the transaction is denied. This processing prevents fraud by a person who somehow reads (or otherwise acquires) an account number or other information associated with the account.

Spec. 1:19–2:1. Claim 1 claims this general idea in more specific detail, reciting "[a] system that keeps check of financial transactions by maintaining a count of the financial transactions." App. Br. 17 (Claims Appx.). The claimed invention checks and authenticates the financial

transactions of first and second user devices associated with single account by comparing a transaction count value, input by the device, with the devices' respective transaction count value windows. *Id.* The transaction count value windows are defined by a dynamic range of values such that a spread value of the transaction count value window changes based on transaction data wherein the data includes one of at least a time of day the transaction was processed, the device that generated the transaction data, a location where the transaction occurred, a frequency of the transactions associated with the device, a rule set, and whether the transaction was processed using batch processing. App. Br. 17–18 (Claims Appx.). If the input transaction count falls within the range of the transaction count window the transaction may be authenticated. *See* Spec. 32:3–8, 34:17–35:2.

Based on a review of the claims as whole and the Specification, as outlined above, we agree with the Examiner's characterization of the claims as being directed to "maintaining an accurate record of financial transactions." Final Act. 3. Moreover, we agree with the Examiner that maintaining an accurate record of financial transactions, or as claim 1 recites, "keep[ing] check of financial transactions by maintaining a count of the financial transactions" is directed to an abstract idea because it is directed to a fundamental economic practice, an idea of itself, or a set of mathematical operations.

The claims essentially involve defining a range of values (the transaction count value window) based on factors such as time of day, and comparing an input transaction count value with this range of values. If the input transaction count value falls within the range, the financial transaction

is authorized, otherwise it is not. These are, at their core, mathematical and logical operations, mental processes and abstract intellectual concepts, the like of which the Federal Circuit has determined to be directed to patent ineligible abstract concepts. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (holding "[a] method for verifying the validity of a credit card transaction" as directed to the abstract idea of "obtain[ing] and compar[ing] intangible data pertinent to business risks"); *Classen Immunotherapies Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067–68 (Fed. Cir. 2011) (holding a claim involving "the idea of collecting and comparing known information," without more, is directed to an abstract idea); *Elec. Power Grp.*, 830 F.3d at 1353 ("The focus of the asserted claims . . . is on collecting information, analyzing it, and displaying certain results of the collection and analysis.").

We find Appellants' argument that the claims pose no risk of preemption, unpersuasive. "While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). Moreover, "[w]here a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot." *Id.*; *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) ("[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract."), *cert. denied*, 136 S. Ct. 701 (2015).

Accordingly, the Examiner did not err in concluding the claims are directed to an abstract idea.

STEP TWO OF ALICE/MAYO FRAMEWORK

Findings and Contentions

Under step two of the *Alice/Mayo* framework, the Examiner concludes:

> The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because although a computer (i.e. a memory and processor) acts to perform the claimed method, the claims do no more than implement maintaining an accurate record of financial transactions on a generic computer. Using a computer to authenticate by using a comparison process that utilizes the first transaction count value window and input transaction count value and generating an authentication result amounts to data analysis, which is one of the most basic functions of a computer. All of these computer functions are "well- understood, routine, conventional activit[ies]" previously known to the industry.

Final Act. 4 (alteration in original). The Examiner further determines, "[t]he claims do not purport to improve the functioning of the computer itself, or to improve any other technology or technical field." Final Act. 5.

With respect to claim 1, Appellants point to the following limitations as significantly more than the alleged abstract idea:

> an authentication portion that performs authentication processing using a comparison process that utilizes the first transaction count value window and the input transaction count value, the first transaction count value window being based on the current transaction count value associated with the first DDN and defined by a dynamic range of values such that a spread value of the first transaction count value window changes based on the received transaction data

> wherein the dynamic range of values for the first transaction count value window is based on at least one selected from the group consisting of a time of day that the transaction was processed, the device that generated the transaction data, a location at which the transaction was effected, a frequency of transactions associated with the device, a rule set, and a determination of whether the transaction was processed using batch processing.

App. Br. 12–13. Appellants argue these limitations are unrelated to the alleged abstract idea. For example, Appellants argue, "The claimed 'dynamic **range** of values' is a novel and non-obvious concept that is not taught by the prior art nor is it related to the obscure idea of 'maintaining an accurate record of financial transactions.'" App. Br. 12. "The abstract idea fashioned by the Examiner is completely unrelated to changing a dynamic range of values for a transaction count value window based on a time of day, the particular device used in the transaction, the location of the transaction, frequency of the transactions, *etc.*" App. Br. 13.

With respect to independent claim 31, Appellants point to the following limitations as evidence that the claim includes significantly more than the alleged abstract idea:

> the window generation portion determines the first value by incrementing the current transaction count value by a first spread value; and
>
> the window generation portion determines the second value by decrementing the current transaction count value by a second spread value, and wherein:
>
> the window generation portion determining the first value by incrementing the current transaction count value by a first spread value is performed according to the relationship:
>
> first value = current transaction count value + first spread value, where the first value, the current transaction count value and the first spread value are integers; and

> the window generation portion determining the second value by decrementing the current transaction count value by a second spread value is performed according to the relationship:
>
> second value = current transaction count value - second spread value, where the second value, the current transaction count value and the second spread value are integers.

App. Br. 13–14. According to Appellants, "[t]hese highly-specific features are both unrelated to, and not required by, the alleged abstract idea of 'maintaining an accurate record of financial transactions.' Nor is it reasonable to argue that these additional features represent 'a fundamental economic practice long prevalent in our system of commerce.'" App. Br. 14.

Finally, citing the lack of prior art rejections under 35 U.S.C. §§ 102 and 103, Appellants argue, "The claims provide an inventive concept since they have been found to be allowable under 35 U.S.C. §§ 102 and 103." App. Br. 15 (boldface omitted).

Analysis

Appellants' arguments are unpersuasive. The limitations cited by Appellants relate to comparing the input transaction count value with the transaction count value window. This is, as explained above, an abstract idea. The claim limitations relating to defining the dynamic range of values so that the transaction count value window changes based on factors, such as time of day, are directly related to, rather than "completely unrelated" to, the abstract idea of maintaining an accurate record of financial transactions by comparing a count value to a count value window. The limitations of claim 31 cited by Appellants simply detail the mathematical operations of calculating the transaction count window range by adding and subtracting

spread values. These mathematical operations are themselves abstract and therefore do not transform a claim otherwise directed to an abstract idea, to something more than the abstract idea. *See RecogniCorp v. Nintendo*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea ... to another abstract idea . . . does not render the claim non-abstract.")

Finally, the fact that the Examiner has withdrawn or not presented a prior art rejection under 35 U.S.C. §§ 102 and 103 does not necessarily mean the claims are directed to patent eligible concepts. Although the second step in the *Alice/Mayo* framework is termed a search for an "inventive concept," the analysis is not an evaluation of novelty or non-obviousness, but rather a search for "an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."' *Alice*, 134 S. Ct. at 2355 (alteration in original) (quoting *Mayo*, 566 U.S. at 73). A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 566 U.S. at 89–90.

Accordingly, we agree with the Examiner the claim limitations, when viewed individually and as an ordered whole, do not include significantly more than the alleged abstract idea of maintaining an accurate record of financial transactions.

DECISION

The Examiner's rejection of claims 1–24 and 26–32 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED